DOCUMENT RESUME

ED 202 650 RC 012 737

AUTHOR Feldhausen, Thomas
TITLE The 4-Day School Week: A Partial Solution to Today's Energy Crisis and Declining State Funding to Education.
INSTITUTION Liberty School District, Spangle, Wash.
PUB DATE 17 Jun 81
CONTRACT 5A00-0110278
NOTE 15p.

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Cost Effectiveness; Elementary Secondary Education; *Energy Conservation; *Extended School Day; *Program Attitudes; Program Effectiveness; Rural Schools; School Districts; *School Schedules; School Support; *Small Schools
IDENTIFIERS American Indian History; *Lakota (Tribe); North Dakota; South Dakota

ABSTRACT

As a partial solution to the energy crisis and to solve the problem of drastically rising operating costs coupled with less state support, in 1980-81 the Liberty School District (Spangle, Washington) implemented a 4-day school week comparable to the program used by Cimarron School District #3 in New Mexico. A survey conducted in 1975 by the Cimarron District (survey form and results included in report) indicated community acceptance of the program. The Liberty School District, a large rural district with one small high school and two small elementary schools, excluded Friday from the school week. This provided a significant decrease in the use of heating oils, natural gas, and electricity. In order to meet Washington requirements, schools started 15 minutes earlier and ended 1 hour later. Projections indicated that the typical high school student would gain almost 31 school days over a 4-year period, despite the fact that school would start one week later and operate for 144 days instead of 180. The gain was attributed to longer class periods, the fact that teacher in-service and parent-teacher conferences were no longer held on school days, and time saved in setting up and cleaning classrooms. Liberty School District realized many advantages and few disadvantages from the program. (CM)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED202650

Liberty School District No. 362

Spangle, Washington .99031

THE 4-DAY SCHOOL WEEK

A Partial Solution to Today's Energy Crisis

and

Declining State Funding to Education

Thomas Feidhausen

June 17, 1981

RC 012737

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Stephenson S. Youngerman, Ph.D.

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

THE 4-DAY SCHOOL WEEK

Rational: Today, the United States of America is facing a severe energy crisis. Our dependence upon foreign oil has not only jeopardized our national security, but it has also forced us to live with the headache of double digit inflation for the past several years and with no apparent end in sight.

The need to import foreign oil has created a situation in which the cost of gasoline and heating fuels has risen to such an extent that a significant amount of a school district's budget must be allocated for these items alone.

The need to conserve these valuable fuels is a duty of every American citizen. Consequently, we must take a realistic look at developing programs that will enable us to save our limited energy resources while we try to maintain an effective and efficient educational program for our children.

Also, many school districts in Washington are facing the additional problem of declining state funding. Combine less state support with drastically rising operating costs, and we have a situation that is not unique to many Washington schools alone, but is shared by countless others throughout our nation.

In the following pages of this report, the 4-day school week is being offered as a partial and viable solution to not only conserve energy, but to save literally tens of thousands of dollars for the patrons of the Liberty School District alone, while actually <u>providing for more instructional time</u> in the classroom setting.

The 4-Day School Week

Comparisons: Several school districts in our nation have gone to the 4-day school week and have found much success with the program. The Cimarron School District #3, Cimarron, New Mexico is one such district and provides a good means of comparison to the Liberty School District when investigating the community acceptance and the financial and educational benefits of such a program.

Cimarron provides a good standard of comparison to the Liberty School District because of many similarities. Both districts have one small high school and two small elementaries. The districts have similar enrollments and both are rural districts that encompass a rather large geographical area. Although Cimarron is located in the southwestren part of our country, it is in a mountainous local and school closures due to heavy snows is not uncommon.

Advantages of the 4-day school week as reported by Cimarron Superintendent Mr. Joe Pumpeo, Jr.:

1. Significant savings in electricity (about 35,000 KW hours/year)
2. Significant savings in propane* (about 15,000 gallons/year)
3. Significant savings in hand soap, bathroom tissue, paper towels and light bulbs.
4. Improved scores on standardized achievement tests.
5. Improved attitudes of teachers and students.
6. Significant savings factor in terms of school funds.
7. Maintenance of buildings is facilitated.
8. The attention span of students is not seriously affected.
9. Students and teachers use the fifth day effectively.
10. Scheduling is flexible.
11. Family ties are strengthened.
12. In effect, make-up days are not needed.
13. Many schools throughout the Nation have shown interest in the 4-day school week.
14. The responses to reactionaires (included in the following pages of this report) indicate the vast majority of students, teachers and parents accept the 4-day school week. "This attitude perhaps contributes most to the apparent success of the program."[1]

*From the information given us from the Cimarron School District, it appears that they heat their buildings with propane.

1. Pumpeo, Joe Jr., Superintendent of Schools, Cimarron, New Mexico

CIMARRON SCHOOL DISTRICT #3

Reactionnaire Concerning the Four Day Week

Compilation of 27 teachers, 2 principals & 1 Counselor

1. I feel as a teacher that I am:

0 a. less effective.
19 b. more effective.
9 c. no different.

2. I feel that the three day weekend:

30 a. is useful to me personally and to my students.
0 b. is useful to me, but not to my students.
0 c. is not useful to me or my students.

3. I feel that the students' attention span because of the longer school day is:

0 a. adversely affected.
13 b. not affected.
15 c. no different.

4. My students' reaction to the four day school week:

0 a. is that they indicate a dislike for the four day week.
27 b. is that they like the four day week.
2 c. I do not note any feelings either way.

5. The midafternoon snack break:

16 a. is a valuable part of the school day.
0 b. is not necessary.
1 c. does not make a difference.

6. I feel that student achievement under the four day week is:

0 a. not as good as a five day program.
19 b. better than the five day program.
9 c. no different.

7. I feel that students' attitude toward school has:

9 a. improved.
0 b. worsened.
16 c. not changed.

8. As a result of the four day week, my attitude toward teaching has:

18 a. improved.
0 b. worsened
11 c. not been affected.

9. As a result of the four day week, I feel that we:

23 a. have made adequate use of the fifth day.
4 b. could use the fifth day more effectively by regularly scheduling in-service.
3 c. should not use the fifth day for any school connected activities.

10. The four day week is a good, sound educational plan and:

30 a. I recommend continuing the plan.
0 b. I do not recommend continuing the plan.
0 c. I would modify it as follows:

CIMARRON SCHOOL DISTRICT #3

Reactionnaire Concerning the Four Day Week

Compilation of Students (grades 7-12)

1. I feel that the three day weekend has been:

150 a. useful to me.
4 b. of no value to me.
0 c. harmful to me.

2. The four day week has:

115 a. improved my attitude toward school.
1 b. make me dislike school.
14 c. made no difference in my attitude toward school.

3. The four day week has caused me:

84 a. to learn more in school.
0 b. to learn less in school.
70 c. Made no difference to me.

4. Under the four day week:

13 a. the school day is too long.
87 b. the school day is about the right length.
54 c. the length of the day does not make a difference.

5. As a result of the four day school week, my absences from school due to reasons not concerning illness has:

80 a. been reduced.
6 b. increased.
67 c. not been affected.

6. As a result of the four day week, the quality of teaching has:

67 a. improved.
1 b. declined.
35 c. not changed.

7. As a result of the four day week I:

110 a. had the opportunity to work.
6 b. have not worked.
35 c. would work if I could find a job.

8. As a result of the four day week:

109 a. I spend more time doing things with my family.
3 b. I spend less time doing things with my family.
41 c. there is no change in the time I spend with my family.

9. In my opinion the quality of life in general can be improved by the four day work week concept.

146 a. yes
6 b. no

10. The four day school week is:

136 a. a good idea.
18 b. an acceptable idea.
0 c. a poor idea.

CIMARRON SCHOOL DISTRICT #3

Reactionnaire Concerning the Four Day Week

Compilation of parent reaction...district wide.

1. As a result of the four day school week my childrens' attendance has:

37 a. improved.
62 b. remained the same.
2 c. declined.

2. As a result of the four day week, my childrens' attitude toward school has:

56 a. improved.
3 b. deteriorated.
43 c. remained the same.

3. In our home, both of us hold a regular job and we find the four day week:

2 a. to be a problem.
3 b. somewhat of a problem.
7 c. a significant problem.

4. As a result of the four day school week, we have found that:

79 a. we are able to do more things as a family.
3 b. we do less things as a family.
19 c. there is no difference in family opportunities.

5. In our home, our children have worked either in a regular job or at home and have contributed to the family income either directly or indirectly.

44 a. yes
42 b. no

6. As a result of the four day school week, parents and teachers have had:

38 a. more opportunity to improve relationships and communication.
6 b. less opportunity to improve relationships and communication.
64 c. no difference in the opportunity to improve relationships and communication.

7. As a parent I have found that the three day weekend is an effective block of time that my children have put to contructive use.

34 a. strongly agree.
57 b. agree.
10 c. do not agree.

8. The four day school week is:

69 a. a good idea.
31 b. an acceptable idea.
4 c. a poor idea.*

*This survey was conducted in 1975. In a phone conservation with the superintendent of Cimarron Schools on January 15, 1981, he stated that today you could not find one parent in the school district that would say that the four day school week is a poor idea. He also stated that the attitude of the students is so much better and that they like school more.

The 4-Day School Week

Monday vs. Friday

At first it appeared that Monday would be the most "natural" day to exclude from the school week. However, after considerable thought and input from some parents, it now seems that Friday would be the most beneficial day to exclude, at least for the Liberty School District, for the following reasons:

1. Many places of business and several government offices are already closed on Mondays. Therefore, if a student or teacher needed the services of these establishments, they would lose "school time".
2. On Fridays, there would be no loss of "school time" for travel in regards to athletics.
3. Friday, being a regular game day, there are usually no scheduled athletic practices. Therefore, coaches and athletes would not lose a day of practice each week as they would if the school buildings were closed on Mondays.
4. Friday would eliminate the problem that some athletes have of maintaining consentration on academics during game days.

The Program

The school calendar and class schedules would be modified to fit the 4-day school week. Fridays, unless a day of school was already lost that week because of holidays, etc., would be the day of "no school". Friday is being chosen because of the reasons stated above.

During Fridays the thermostats and lights in the school buildings would be maintained as they are during weekends, holidays and vacation periods, thus providing for a significant decrease in the use of heating oils, natural gas and electricity.

In order to meet Washington State minimum contact hours in the Liberty School District, schools would start 15 minutes earlier and end 1 hour later.

Liberty High School	8:30 am - 4:30 pm
West Liberty	8:15 am - 4:10 pm
East Liberty	8:40 am - 4:20 pm

At least one administrator will be on duty in the district every Friday to facilitate school district business.

The school district secretary will still work a 5-day work week in order to keep the superintendent's office open and to facilitate district business.

Custodians will still work a 40 hour, 5-day week to facilitate building maintenance.

Transportation supervisor will still work a 5-day week to facilitate maintenance on district vehicles.

The 4-Day School Week

Comparison of Calendars
5-Day Program 1980-81 School Year

Liberty School District #362

AUGUST

M	T	W	TH	F
25	26*	27	28	29

SEPTEMBER

M	T	W	TH	F
(1)	2	3	4	5
8	9	10	11	12
15	16	17	18	19
22	23	24	25	26
29	30			

OCOTOBER

M	T	W	TH	F
		1	2	3
6	7	8	9	(10)
13	14	15	16	17
20	21	22	23	24
27	28	29	30	31

NOVEMBER

M	T	W	TH	F
3	4	5	6	7
10	(11)	12	13	14
17	18	19	20	21
24	25	26	27	28
24	25	26	(27)	(28)

DECEMBER

M	T	W	TH	F
1	2	3	4	5
8	9	10	11	12
15	16	17	18	19
22	23	(24)	(25)	(26)
(29)	(30)	(31)		

JANUARY

M	T	W	TH	F
			(1)	(2)
5	6	7	8	9
12	13	14	15	16
19	20	21	22	23
26	27	28	29	30

FEBRUARY

M	T	W	TH	F
2	3	4	5	6
9	10	11	12	13
(16)	17	18	19	20
23	24	25	26	27

MARCH

M	T	W	TH	F
2	3	4	5	6
9	10	11	12	13
16	17	18	19	(20)
23	24	25	26	27
30	31			

APRIL

M	T	W	TH	F
		1	2	3
(6)	(7)	(8)	(9)	(10)
13	14	15	16	17
20	21	22	23	24
27	28	29	30	

MAY

M	T	W	TH	F
				1
4	5	6	7	8
11	12	13	14	15
18	19	20	21	22
(25)	26	27	28	29

JUNE

M	T	W	TH	F
1	2*			

180 day school calendar

August 25	Teachers' Workshop
August 26	1st Day of School
September 1	Labor Day
October 10	State Curriculum Day
November 11	Veteran's Day
Nov. 27-28	Thanksgiving
December 24-January 2	Christmas Vacation
February 16	Presidents' Day
March 20	State Curriculum Day
April 6-10	Spring Vacation
May 25	Memorial Day
June 2	Last Day of School

The 4-Day School Week

Comparison of Calendars
4-Day Program 1980-81 School Year

Liberty School District #362

SEPTEMBER

M	T	W	TH	F
(1)	2	3*	4	5 ~~12~~
8	9	10	11	~~19~~
15	16	17	18	~~26~~
22	23	24	25	
29	30			

OCTOBER

M	T	W	TH	F
		1	2	~~3~~
6	7	8	9	(10)
13	14	15	16	~~17~~
20	21	22	23	~~24~~
27	28	29	30	~~31~~

NOVEMBER

M	T	W	TH	F
3	4	5	6	~~7~~
10	(11)	12	13	14
17	18	19	20	~~21~~
24	25	26	27	~~28~~
24	25	26	(27)	(28)

DECEMBER

M	T	W	TH	F
1	2	3	4	~~5~~
8	9	10	11	~~12~~
15	16	17	18	~~19~~
22	23	(24)	(25)	(26)
(29)	(30)	(31)		

JANUARY

M	T	W	TH	F
			(1)	(2)
5	6	7	8	~~9~~
12	13	14	15	~~16~~
19	20	21	22	~~23~~
26	27	28	29	~~30~~

FEBRUARY

M	T	W	TH	F
2	3	4	5	~~6~~
9	10	11	12	~~13~~
(16)	17	18	19	20
23	24	25	26	~~27~~

MARCH

M	T	W	TH	F
2	3	4	5	~~6~~
9	10	11	12	~~13~~
16	17	18	19	(20)
23	24	25	26	~~27~~
30	31			

APRIL

M	T	W	TH	F
		1	2	~~3~~
(6)	(7)	(8)	(9)	(10)
13	14	15	16	~~17~~
20	21	22	23	~~24~~
27	28	29	30	

MAY

M	T	W	TH	F
				~~1~~
4	5	6	7	~~8~~
11	12	13	14	~~15~~
18	19	20	21	~~22~~
(25)	26	27	28	29*

144 day school calendar

September 1	Labor Day
September 2	Teachers' Workshop
September 3	1st Day of School
October 10	State Currriulum Day
November 11	Veteran's Day
Nov. 27-28	Thanksgiving
December 24-January 2	Christmas Vacation
February 16	Presidents' Day
March 20	State Curriculum Day
April 6-10	Spring Vacation
May 25	Memorial Day
May 29	Last Day of School

The 4-Day School Week

Instructional Time Gain

With the 4-day school week, instructional time will be gained because of three different things taking place:
1. longer class periods.
2. teacher in-service and parent-teacher conferences no longer held on school days.
3. less time lost for setting up and cleaning up a classroom.

A typical high school student will gain 7 to 8 days of instruction, or about 30 full days of school over a four year period of time. As astonishing as this may seem, the facts are found below.

1. Longer Class Periods

1st Period
currently 50 minutes x 180 days = 9,000 instructional minutes
proposed 64 minutes x 144 days = 9,216 instructional minutes
216 minutes gained

2nd - 6th periods
currently 49 minutes x 180 days = 8,820 instructional minutes
proposed 62 minutes x 144 days = 8,928 instructional minutes
108 minutes gained/period
x 5 periods
540 minutes gained

7th period
currently 50 minutes x 180 days = 9,000 instructional minutes
proposed 60 minutes x 144 days = 8,640 instructional minutes
360 minutes lost

Total Time Gained Because of Lengthening Periods

1st period	+216 minutes
2nd - 6th	+540 minutes
7th period	-360 minutes
Total	+396 minutes/school year or 6.6 hours of instructional time

2. No in-service & conferences on school days

Two half days (6 instructional hours) are now lost because of teacher in-service workshops. Holding these workshops on Friday will mean a gain of 6 instructional hours each year for high school students.

Four half days (12 instructional hours approx.) are now lost each year in our elementary schools because of teacher in-service and parent-teacher conferences. Holding these valuable experiences on Fridays will mean a gain of about 12 instructional hours each year for grades 1 - 8.

The 4-Day School Week

Instructional Time Gain

3. Less Time Lost for Set-Up and Clean-Up.

In addition to the 396 minutes (6.6 hours) gained each year simply by increasing the length of each period, additional instructional time will be found as less time will now be lost because of the time required to "set-up" and "clean-up" for a class.

Class	(a) Set-Up Time	(b) Clean-Up Time	(c) Time Lost 5-day wk (a + b) x 5	(d) Time Lost 4-day wk (a + b) x 4	(e) Time Gain each wk (c - d)	Time Gain each year (e x 36)
PE	5 min.	10 min.	75 min.	60 min.	15 min.	540 min. or 9 hours
Shop	5 min.	7 min.	60 min.	48 min.	12 min.	432 min. or 7.2 hr.
Lab Sc.	5 min.	5 min.	50 min.	40 min.	10 min.	360 min. or 6 hours
Music	5 min.	5 min.	50 min.	40 min.	10 min.	360 min. or 6 hours
Home Ec	5 min.	5 min.	50 min.	40 min.	10 min.	360 min. or 6 hours
Art	5 min.	7 min.	60 min.	48 min.	12 min.	432 min. or 7.2 hr.
Bus Ed.	5 min.	3 min.	40 min.	32 min.	8 min.	288 min. or 4.8 hr.
Regular Classroom	2 min.	2 min.	20 min.	16 min.	4 min.	144 min. or 2.4 hr.

What instructional time gained means for the typical high school student...

Grade	9	10	11	12
time gain in periods:	6.6 hrs	6.6	6.6	6.6
time gain in-service:	6.0 hrs.	6.0	6.0	6.0
time gain in class schedule:				
	PE 9.0 hrs.	PE 9.0	English 2.4	English 2.4
	Home Ec 6.0	Shop 7.2	US History 2.4	CWP 2.4
	Math 2.4	Science 6.0	Shop 7.2	Wt. Tr. 9.0
	English 2.4	Crafts 7.2	Band 6.0	Chorus 6.0
	Wash. His. 2.4	English 2.4	Physics 6.0	Trig 2.4
	Art 7.2	Geometry 2.4	Comp. Sc. 4.8	Adv. Bio 2.4
	Chorus 6.0	Typing 4.8	Ind. Study 0	HEc 6.0
Total Time Gained/year	48.0 hours	51.6	41.4	43.2

The above facts prove that a typical high school student at Liberty High School would gain approximately 184.2 instructional hours in four years. This is an equivalent of almost 31 school days in a 5-day school week, dispite the fact that Liberty Schools would start one week later and operate on an extended school day for 144 days instead of the traditional 180 days.

The 4-Day School Week

Banking Teachers' Time

Another interesting aspect of the 4-day school week is that teachers could be required to attend in-service workshops and parent-teacher conferences on the off school day at no additional costs to the school district. This is done by banking teachers' time. There are several ways to determine how to "bank" teachers' time...only two are shown below.

Example 1:

--Currently teachers at Liberty High School must be on the job from 8:15 am until 3:45 pm, or a total of 7.5 hours.

7.5 hours x 180 school days = 1,350 hours

--The proposed 4-day school week would require the teachers to be on duty from 8 am until 5 pm, or a total of 9 hours.

9 hours x 144 school days = 1,296 hours

1,350
- 1,296

54 hours banked

Example 2:

Teachers are now required to be on duty ½ hour prior to the beginning of school, and ½ hour after dismissal.

This amounts to 1 hour of non-instructional time that teachers must be on duty each and every school day.

1 hour x 5 school days = 5 hours/week

On a four-day school week, the teachers must still report ½ hour before the start of school and remain for ½ hour after dismissal.

This amounts to 1 hour of non-instructional time that teachers must be on duty each and every school day.

1 hour x 4 school days = 4 hours/week

This one additional hour each week is "banked" for the 36 weeks of school.

1 hour x 36 weeks = 36 hours banked.

Advantages to the Liberty School District

1) A projected 20% savings in salaries of bus drivers.

2) A projected 20% savings in gasoline and maintenance costs on district vehicles.

3) A projected 10 - 15% savings in utility costs.

4) A projected 20% increase in the life of district vehicles which would eventually result in the purchase of fewer school buses over the years.

5) Facilitate building maintenance as custodians would still work the same hours over a five-day work week. They would now be able to complete projects that normally are delayed until summer. Thus, a reduction in the extra help that must be hired for summer maintenance.

6) Facilitate maintenance on district vehicles as the transportation supervisor will still work a 5-day week.

7) Reduce the need for substitute teachers by 25-30% as teachers could be required to use Fridays in lieu of personal leave.

8) Reduce about 18% the cost of hand soap, bathroom tissue, light bulbs, dishwasher soap, laundry soap and paper towels.

9) A projected 18% reduction in the cost of linen service.

10) No loss of school time for parent-teacher conferences.

11) No loss of school time for teacher in-service training.

12) No need to extend the school year, as Fridays towards the spring of the year could be used for make-up for snow closures, etc.

13) School would start 1 week later. This would aid our community during harvest.

14) More instructional time would be provided to the students.

15) As evidenced by other school districts using the 4-day school week, student attendance is projected to improve.

16) Since more instructional time will take place, we could expect increased state funding for vocational education.

17) As evidenced by other school districts using the 4-day school week, we could expect improved attitudes in students and staff.

18) As evidenced by other school districts using the 4-day school week, we would expect a rise in standardized achievement test scores.

19) A three day weekend would provide the opportunity for families to do more things together.

20) Student attendence would improve as they would be required to use Fridays for job interviews, dentist appointments, physicals, library research, senior pictures, etc.

21) Family incomes could be supplimented by students who work on Fridays.

22) Many families with two working parents might find that having their children arrive home later on Monday through Thursdays, that they could eliminate the need for a baby sitter on those afternoons.

23) High school and junior high school students could work Fridays as baby sitters for working parents.

24) A projected 15-20% increase in the life of shop tools, home economic appliances, washers and dryers.

25) Longer class periods would particularily benefit the junior high PE classes.

26) The Liberty School District would be demonstrating that it is doing its share of energy conservation.

27) Students and teachers who must drive to school could expect a significant reduction in their gasoline costs as well as allowing them the opportunity of conserving energy for the good of our economy.

28) Since students will be receiving more instructional time, they should perform better on college entrance and scholarship examinations, thus providing our students with an "edge" in regards to college admissions.

Disadvantages to the Liberty School District

1) Longer day for elementary students.

   Proposed Solution: A 15 minute "snack break" in the afternoons. This plan is reported to be quite successful in the Cimarron School District for getting elementary youngsters through the extended school day.

2) The proposed "snack break" would cost the school district about $3,000/year.

   Proposed Solution: Develop the rational that an investment of $3,000 when weighed against the savings of literally tens of thousands of dollars, is greatly offset.

3) Families with two working parents would be inconvenienced on Fridays if they rely on the schools for "baby sitting" service.

   Proposed Solution: These parents could hire high school and junior high school students on Fridays. Also, the need to hire short-term baby sitters on Monday through Thursday might be eliminated.